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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,329	04/01/2004	Naoki Yoshida	P21-169535M/ISI	5337
21254 7590 05/19/2008 MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817			EXAMINER HEWITT, JAMES M	
			ART UNIT 3679	PAPER NUMBER
			MAIL DATE 05/19/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/814,329

Applicant(s)

YOSHIDA, NAOKI

Examiner

JAMES M. HEWITT

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/15/07 has been entered.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3, 5-19 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the term "ring-like" renders the claim(s) indefinite. The term is not defined by the claim, the specification does not provide a standard for ascertaining the requisite therefor, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 6-17 and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neill et al (US 6,464,266) in view of Attwood (US 4,911,406).

With respect to claim 1, O'Neill discloses a piping connector for connecting a first pipe and a second pipe, said connector comprising: a socket (10) having a tubular shape attachable to an end of the first pipe to be connected; a plug (26) having a tubular shape attachable to an end of the second pipe; a seal ring (15) arranged at an inner periphery of the socket for sealing an interval between the inner periphery of the socket and an outer periphery of the plug in an airtight manner; and a hold ring (18) disposed against the inner periphery of the socket for restricting the seal ring from moving in an axial direction, wherein the first pipe and the second pipe are connectable by inserting the plug to fit to the socket; and wherein the hold ring includes a groove (see Fig. 1) having a ring-like shape for constituting a burr storing space, at an outer periphery of the holding ring, said groove being disposed so as to create a space between the hold ring and the inner periphery of the socket. O'Neill fails to teach that the holding ring is welded to the inner periphery of the socket by ultrasonic welding. Attwood teaches that it is known to weld a hold ring or bushing to the inner periphery of a socket. In view of Attwood's teaching, it would have been obvious to one having

Art Unit: 3679

ordinary skill in the art at the time the invention was made to affix O'Neill's hold ring to the inner periphery of the socket via welding in order to permanently secure the hold ring.

With respect to the recitation "...welded to the inner periphery of the socket by ultrasonic welding", the method of forming the device is not germane to the issue of patentability of the device itself and does not serve to structurally distinguish the claims.

With respect to claim 3, O'Neill/Attwood disclose a piping connector according to Claim 1, wherein the inner periphery of the socket is provided with a first diameter contracted portion and a second diameter contracted portion from a side of an inserting port of the plug, the hold ring is pressed to the first diameter contracted portion to weld, and a stepped portion for constituting a stopper and a burr stopper in welding the hold ring is formed between the first diameter contracted portion and the second diameter contracted portion. Refer to Fig. 1.

With respect to claim 6, O'Neill discloses a piping connector according to Claim 1, wherein the inner periphery of the socket comprises: a first diameter contracted portion; a second diameter contracted portion; and a stepped portion formed between the first diameter contracted portion and the second diameter contracted portion. Refer to Fig. 1.

With respect to claim 7, O'Neill discloses a piping connector according to Claim 1, wherein said groove comprises a V shape. O'Neill's groove is V-shaped inasmuch as Applicant's groove is V-shaped as shown in FIG. 4B.

With respect to claim 8, O'Neill discloses a piping connector according to Claim 1, wherein said hold ring comprises: a large diameter portion; and a small diameter portion adjacent to the large diameter portion. Refer to Fig. 1.

With respect to claim 9, O'Neill discloses a piping connector according to Claim 8, wherein said groove is formed between said large diameter portion and said small diameter portion. Refer to Fig. 1.

With respect to claim 10, O'Neill discloses a piping connector according to Claim 8, wherein said groove is formed at an outer periphery of said large diameter portion, and said small diameter portion is formed at an end of said groove. Refer to Fig. 1.

With respect to claim 11, O'Neill discloses a piping connector according to Claim 1, wherein said groove comprises a wall portion having a tapered shape. Refer to Fig. 1.

With respect to claim 12, O'Neill discloses a piping connector according to Claim 8, wherein said groove comprises a wall portion having a tapered shape extending from a bottom portion of said groove to said small diameter portion. Refer to Fig. 1.

With respect to claim 13, O'Neill discloses a piping connector according to Claim 1, wherein a portion of the hold ring pressed to the inner periphery of the socket includes a corner portion having a curved shape with a radius of curvature. Refer to Fig. 1.

With respect to claim 14, O'Neill discloses a piping connector according to Claim 8, wherein said large diameter portion comprises an outer diameter substantially matched to an inner periphery of an inner portion of said socket. Refer to Fig. 1.

With respect to claim 15, O'Neill discloses a piping connector according to Claim 8, wherein said small diameter portion comprises an outer diameter substantially matched to an inner periphery of an inner portion of said socket. Refer to Fig. 1.

With respect to claim 16, O'Neill discloses a piping connector according to Claim 1, further comprising a stopper member (27 or 20) mounted on said socket.

With respect to claim 17, O'Neill discloses a piping connector according to Claim 16, wherein said stopper member comprises a bent wire member (27). Given the

Art Unit: 3679

broadest reasonable interpretation, thin metal ring (27) has been considered a bent wire member.

With respect to claim 19, O'Neill discloses a piping connector according to Claim 1, wherein said socket comprises a position projection (of 20) formed on an outer periphery of said socket.

With respect to claim 20, O'Neill discloses a piping connector for connecting a first pipe to a second pipe, said piping connector comprising: a socket (10) attachable to an end of the first pipe; a plug (26) attachable to an end of the second pipe; and a hold ring (18) disposed against an inner periphery of the socket, wherein said hold ring includes a groove at an outer periphery of the hold ring. O'Neill fails to teach that the hold ring is fixedly attached to the socket. Attwood teaches that it is known to weld a hold ring or bushing to the inner periphery of a socket. In view of Attwood's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to affix O'Neill's hold ring to the inner periphery of the socket via welding in order to permanently secure the hold ring.

With respect to claim 21, O'Neill discloses a piping connector for connecting a first pipe to a second pipe, said piping connector comprising: first connecting means (socket 10); second connecting means (plug 26); and holding means (hold ring 18) disposed against an inner periphery of one of said first connecting means and said



second connecting means. O'Neill fails to teach that the hold ring is attached to the socket. Attwood teaches that it is known to weld a hold ring or bushing to the inner periphery of a socket. In view of Attwood's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to affix O'Neill's hold ring to the inner periphery of the socket via welding in order to permanently secure the hold ring.

With respect to claim 22, O'Neill discloses a piping connector according to claim 1, wherein a portion of the hold ring pressed to the inner periphery of the socket is constituted by a corner portion faced in a curved shape.

With respect to the recitation "...welded to the inner periphery of the socket by ultrasonic welding", the method of forming the device is not germane to the issue of patentability of the device itself and does not serve to structurally distinguish the claims.

Claims 1, 6-16 and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ketcham (US 5,423,577) in view of Attwood (US 4,911,406).

With respect to claim 1, Ketcham discloses a piping connector for connecting a first pipe and a second pipe, said connector comprising: a socket (26) having a tubular shape attachable to an end of the first pipe to be connected; a plug (22) having a tubular shape attachable to an end of the second pipe; a seal ring (48) arranged at an inner periphery of the socket for sealing an interval between the inner periphery of the socket and an outer periphery of the plug in an airtight manner; and a hold ring (50)

disposed against the inner periphery of the socket for restricting the seal ring from moving in an axial direction, wherein the first pipe and the second pipe are connectable by inserting the plug to fit to the socket; and wherein the hold ring includes a groove (see Fig. 3) having a ring-like shape for constituting a burr storing space, at an outer periphery of the holding ring, said groove being disposed so as to create a space between the hold ring and the inner periphery of the socket. Ketcham fails to teach that the holding ring is welded to the inner periphery of the socket by ultrasonic welding. Attwood teaches that it is known to weld a hold ring or bushing to the inner periphery of a socket. In view of Attwood's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to affix Ketcham's hold ring to the inner periphery of the socket via welding in order to permanently secure the hold ring.

With respect to the recitation "...welded to the inner periphery of the socket by ultrasonic welding", the method of forming the device is not germane to the issue of patentability of the device itself and does not serve to structurally distinguish the claims.

With respect to claim 6, Ketcham discloses a piping connector according to Claim 1, wherein the inner periphery of the socket comprises: a first diameter contracted portion; a second diameter contracted portion; and a stepped portion formed between the first diameter contracted portion and the second diameter contracted portion. Refer to Fig. 3.

Art Unit: 3679

With respect to claim 7, Ketcham discloses a piping connector according to Claim 1, wherein said groove comprises a V shape. Ketcham's groove is V-shaped inasmuch as Applicant's groove is V-shaped as shown in FIG. 4B. Refer to Fig. 3.

With respect to claim 8, Ketcham discloses a piping connector according to Claim 1, wherein said hold ring comprises: a large diameter portion; and a small diameter portion adjacent to the large diameter portion. Refer to Fig. 3.

With respect to claim 9, Ketcham discloses a piping connector according to Claim 8, wherein said groove is formed between said large diameter portion and said small diameter portion. Refer to Fig. 3.

With respect to claim 10, Ketcham discloses a piping connector according to Claim 8, wherein said groove is formed at an outer periphery of said large diameter portion, and said small diameter portion is formed at an end of said groove. Refer to Fig. 3.

With respect to claim 11, Ketcham discloses a piping connector according to Claim 1, wherein said groove comprises a wall portion having a tapered shape. Refer to Fig. 3.

Art Unit: 3679

With respect to claim 12, Ketcham discloses a piping connector according to Claim 8, wherein said groove comprises a wall portion having a tapered shape extending from a bottom portion of said groove to said small diameter portion. Refer to Fig. 3.

With respect to claim 13, Ketcham discloses a piping connector according to Claim 1, wherein a portion of the hold ring pressed to the inner periphery of the socket includes a corner portion having a curved shape with a radius of curvature. Refer to Fig. 3.

With respect to claim 14, Ketcham discloses a piping connector according to Claim 8, wherein said large diameter portion comprises an outer diameter substantially matched to an inner periphery of an inner portion of said socket. Refer to Fig. 3.

With respect to claim 15, Ketcham discloses a piping connector according to Claim 8, wherein said small diameter portion comprises an outer diameter substantially matched to an inner periphery of an inner portion of said socket. Refer to Fig. 3.

With respect to claim 16, Ketcham discloses a piping connector according to Claim 1, further comprising a stopper member (flange) mounted on said socket.

Art Unit: 3679

With respect to claim 18, Ketcham discloses a piping connector according to Claim 1, wherein said plug comprises a position projection (24) formed on an outer periphery of said plug.

With respect to claim 19, Ketcham discloses a piping connector according to Claim 1, wherein said socket comprises a position projection (flange) formed on an outer periphery of said socket.

With respect to claim 20, Ketcham discloses a piping connector for connecting a first pipe to a second pipe, said piping connector comprising: a socket (26) attachable to an end of the first pipe; a plug (22) attachable to an end of the second pipe; and a hold ring (50) disposed against an inner periphery of the socket, wherein said hold ring includes a groove at an outer periphery of the hold ring. Ketcham fails to teach that the hold ring is fixedly attached to the socket. Attwood teaches that it is known to weld a hold ring or bushing to the inner periphery of a socket. In view of Attwood's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to affix Ketcham's hold ring to the inner periphery of the socket via welding in order to permanently secure the hold ring.

With respect to claim 21, Ketcham discloses a piping connector for connecting a first pipe to a second pipe, said piping connector comprising: first connecting means (socket 26); second connecting means (plug 22); and holding means (hold ring 50)

Art Unit: 3679

disposed against an inner periphery of one of said first connecting means and said second connecting means. Ketcham fails to teach that the hold ring is attached to the socket. Attwood teaches that it is known to weld a hold ring or bushing to the inner periphery of a socket. In view of Attwood's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to affix Ketcham's hold ring to the inner periphery of the socket via welding in order to permanently secure the hold ring.

With respect to claim 22, Ketcham discloses a piping connector according to claim 1, a portion of the hold ring pressed to the inner periphery of the socket is constituted by a corner portion faced in a curved shape.

With respect to the recitation "...welded to the inner periphery of the socket by ultrasonic welding", the method of forming the device is not germane to the issue of patentability of the device itself and does not serve to structurally distinguish the claims.

***Allowable Subject Matter***

Claims 2 and 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments filed 10/9/07 with respect to the 35 USC 102 rejections of claims 20 and 21 have been fully considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments, see pages 8-12, filed 10/9/07, with respect to the 35 USC 103 rejections have been fully considered and are persuasive. Therefore, said rejections have been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of O'Neill and Attwood.

Applicant's arguments, see pages 13-14, filed 10/9/07, with respect to the 35 USC 112 6<sup>th</sup> paragraph rejections have been fully considered and are persuasive. Therefore, said rejections have been withdrawn.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

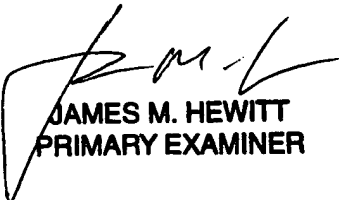
Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES M. HEWITT whose telephone number is (571)272-7084.

Art Unit: 3679

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Stodola can be reached on 571-272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMH  
2/4/08



**JAMES M. HEWITT**  
**PRIMARY EXAMINER**